



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,745	11/29/2001	Sanjiv G. Tewani	DP-306477 7500/124	3702

7590 09/19/2005

DELPHI TECHNOLOGIES, INC.  
Legal Staff Mail Code: 482-204-450  
1450 W. Long Lake  
P.O. BOX 5052  
Troy, MI 48098

EXAMINER

TORRES, MELANIE

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/997,745

Applicant(s)

TEWANI ET AL.

Examiner

Melanie Torres

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima.

Re claim 1, Kojima discloses a powertrain mount (10) comprising an orifice plate (30) defining an orifice track (44A) having a first cross-sectional area and a slug (48) having a bore (60) with a second cross-sectional area less than the first cross-sectional area. (Figure 5)

Re claim 2, Kojima discloses at least one stop (50) disposed in the orifice track.

Re claim 3, Kojima discloses wherein the at least one stop (50) limits travel of the slug in the orifice track (44A).

Re claim 4, Kojima discloses wherein the bore (44A) has a constant cross-sectional area.

Re claim 5, Kojima discloses a powertrain mount (10) comprising a base plate (16a), a molded member (22) connected to the base plate, an orifice plate (30)

connected to one of the base plate or the molded member, the orifice plate defining an orifice track (44A) having a first cross-sectional area and a slug (48) slidably disposed in the orifice track, the slug having a bore (60) with a second cross-sectional area less than the first cross-sectional area.

Re claim 6, Kojima discloses at least one stop (50) disposed in the orifice track (44A).

Re claim 7, Kojima discloses wherein the at least one stop (50) limits travel of the slug (48) in the orifice track (44A).

Re claim 8, Kojima discloses wherein the bore (60) has a constant cross-sectional area.

Re claim 9, Kojima discloses a mount (10) for a powertrain component of a motor vehicle, the mount comprising a base plate (16A), a molded member (22) connected to the base plate, an orifice plate (30) connected to one of the base plate or the molded member, the orifice plate defining an orifice track (44A) having a first cross-sectional area and a slug (48) slidably disposed in the orifice track, the slug having a bore (60) with a second cross-sectional area less than the first cross-sectional area.

Re claim 10, Kojima discloses at least one stop (50) disposed in the orifice track.

Re claim 11, Kojima discloses wherein the at least one stop (50) limits travel of the slug in the orifice track.

Re claim 12, Kojima discloses wherein the bore (60) has a constant cross-sectional area.

Re claim 13, Kojima discloses wherein the powertrain component is an engine.  
(Column 1, lines 11-13)

Re claims 15, 17 and 19, Kojima teaches wherein the slug is a floating slug to the same extent as applicant's invention.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. in view of Aaron et al.

Re claim 1, Ushijima et al. teach a powertrain mount (10) comprising an orifice plate (12) defining an orifice track having a first cross-sectional area and a slug (84).

However, Ushijima et al. do not teach a slug having a bore with a second cross-sectional area less than the first cross-sectional area. Aaron et al. teach a slug (46) having a bore (47, 48, 49) with a second cross-sectional area less than the first cross-sectional area. (Figure 4) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the bore of Aaron et al. in the mount of Ushijima et al. in order to provide a dampened flow through the orifice track.

Re claim 2, Ushijima et al. as modified teach at least one stop (44) disposed in the orifice track.

Re claim 3, Ushijima et al. as modified teach wherein the at least one stop (44) limits travel of the slug in the orifice track.

Re claim 4, Ushijima et al. as modified teach wherein the bore (47-49) has a constant cross-sectional area.

Re claim 5, Ushijima et al. teach a powertrain mount (10) comprising a base plate (14), a molded member (16) connected to the base plate, an orifice plate (12) connected to one of the base plate or the molded member, the orifice plate defining an orifice track having a first cross-sectional area and a slug (84) slidably disposed in the orifice track. However, Ushijima et al. do not teach wherein the slug has a bore with a second cross-sectional area less than the first cross-sectional area. Aaron et al. teach

Art Unit: 3683

a slug (46) having a bore (47, 48, 49) with a second cross-sectional area less than the first cross-sectional area. (Figure 4) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the bore of Aaron et al. in the mount of Ushijima et al. in order to provide a dampened flow through the orifice track.

Re claim 6, Ushijima et al. as modified teaches at least one stop (44) disposed in the orifice track.

Re claim 7, Ushijima et al. as modified teaches wherein the at least one stop (44) limits travel of the slug (46) in the orifice track.

Re claim 8, Ushijima et al. as modified teaches wherein the bore (60) has a constant cross-sectional area.

Re claim 9, Ushijima et al. teaches a mount (10) for a powertrain component of a motor vehicle, the mount comprising a base plate (14), a molded member (16) connected to the base plate, an orifice plate (12) connected to one of the base plate or the molded member, the orifice plate defining an orifice track having a first cross-sectional area and a slug (84) slidably disposed in the orifice track. However, Ushijima et al. do not teach the slug having a bore (60) with a second cross-sectional area less than the first cross-sectional area. Aaron et al. teach a slug (46) having a bore (47, 48, 49) with a second cross-sectional area less than the first cross-sectional area. (Figure

Art Unit: 3683

4) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the bore of Aaron et al. in the mount of Ushijima et al. in order to provide a dampened flow through the orifice track.

Re claim 10, Ushijima et al. as modified teaches at least one stop (44) disposed in the orifice track.

Re claim 11, Ushijima et al. as modified teaches wherein the at least one stop (44) limits travel of the slug in the orifice track.

Re claim 12, Ushijima et al. as modified teaches wherein the bore (47, 48, 49) has a constant cross-sectional area.

Re claim 13, Ushijima et al. as modified teaches wherein the powertrain component is an engine. (Column 1, lines 11-15)

Re claims 15, 17 and 19, Ushijima as modified teaches wherein the slug is a floating slug to the same extent as applicant's invention.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Chikamori et al.



Re claim 14, Kojima does not teach wherein the powertrain component is a transmission. Chikamori et al. teaches a mount (9) used for a transmission (5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a mount for use with a transmission in order to reduce vibration.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. in view of Aaron et al. and further in view of Chikamori.

Re claim 14, Ushijima as modified does not teach wherein the powertrain component is a transmission. Chikamori et al. teaches a mount (9) used for a transmission (5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a mount for use with a transmission in order to reduce vibration.

7. Claims 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Baldini et al. (US 5,273,262).

Kojima does not teach wherein the length of free travel of the slug is chosen such that its movement is not restricted during small amplitude input displacements to the mount. Baldini et al. teach wherein the length of free travel of a slug (48) is chosen such that its movement is not restricted during small amplitude input displacements to the mount. It would have been obvious to one of ordinary skill in the art to have chosen slug dimensions that would not restrict small amplitude input displacements to the mount in order to allow for damping during engine idling. (Column 3, 1<sup>st</sup> paragraph)

8. Claims 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. in view of Aaron et al. as applied above and further in view of Baldini et al. (US 5,273,262).

Ushijima et al. as modified does not teach wherein the length of free travel of the slug is chosen such that its movement is not restricted during small amplitude input displacements to the mount. Baldini et al. teach wherein the length of free travel of a slug (48) is chosen such that its movement is not restricted during small amplitude input displacements to the mount. It would have been obvious to one of ordinary skill in the art to have chosen slug dimensions that would not restrict small amplitude input displacements to the mount in order to allow for damping during engine idling. (Column 3, 1<sup>st</sup> paragraph)

### ***Response to Arguments***

9. Applicant's arguments filed June 27, 2005 have been fully considered but they are not persuasive.

Applicant argues that Kojima does not teach a slug slidably disposed in the orifice track. As described above and as shown clearly in Figure 3, the "slug" (48) of Kojima is slidably disposed in an orifice track (44). The "orifice track" of Kojima is an orifice track to the same extent as applicant's invention since it is defined in Applicant's specification as merely a passage which allows fluid flow from one passage to another. (Pg 4, 3<sup>rd</sup> paragraph) Element 44A was cited in error, but is considered a portion of the "orifice track" 44 nonetheless.

Regarding Applicant's arguments with respect to Ushijima et al. in view of Aaron et al. Applicant is arguing an embodiment not relied upon by the examiner. The examiner relies on Figure 8 and element 84 (not 24) of Ushijima in the instant rejection. Therefore, applicant's arguments are moot and the Examiner maintains that the combination is obvious as discussed above.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3683

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Torres whose telephone number is (571)272-7127. The examiner can normally be reached on Monday-Friday, 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (571)272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MT  
September 14, 2005

*Melanie Torres*

*Melanie Torres*  
*Primary Examiner*

*9.14-05*